ABSTRACT

Title:

Energy expenditure of motion of ski simulator SkyTec Interactiv

Objetives:

The goal of this bachelor thesis is to determine energy expenditure of organism at the ski simulator SkyTec Interactiv.

Methods:

The content of this bachelor thesis was noinvasive measurement of fourteen participants. Energy expenditure rate was determined by indirect kalorimetry thus based on the volume of oxygen consumption and the amount of exhaled carbon dioxide. Measurement ~~it~~ was done at the ski simulator SkyTec Interactiv and portable metabolic analyzer MetaMax 3B was used for that mesuarment.

Results:

Measurement detected energy expenditure of each proband. Total amount of energy expendicture of active racing skiers was 117,67 kJ while of no racing skiers was 218,99 kJ. Assumed hypothesis was confirmed. Lower values of energy expenditure were measured at active racing skiers in comparison with inactive /others skiers.

Keywords:

Skiing, ski simulator, energy expenditure, spiroergometry, oxygen consumption